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EXAMINER				
WYCHE, MYRON				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/598,511

**Applicant(s)**

STEGMAIER ET AL.

**Examiner**

MYRON WYCHE

**Art Unit**

2617

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 September 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 51-100 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 51-100 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 01 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/SB-06)  
Paper No(s)/Mail Date 9/1/06 and 10/2/06  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The information disclosure statements (IDS) submitted on 9/1/06 and 10/23/06 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

The abstract of the disclosure is objected to because of the length of the paragraph of the abstract. In particular, a word count of the existing abstract using Microsoft WORD indicated a length of 229 words. Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words (emphasis added). It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for

consulting the full patent text for details. The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc. Correction is required. See MPEP § 608.01(b).

### ***Claim Rejections - 35 USC § 101***

Claims 80-82 are rejected under 35 U.S.C. 101 because they are directed to non-statutory subject matter. In particular, regarding "Subject Matter Eligibility of Computer Readable Media," The Official Gazette (O.G.) of January 26, 2010, states:

The United States Patent and Trademark Office (USPTO) is obliged to give claims their broadest reasonable interpretation consistent with the specification during proceedings before the USPTO. See *In re Zletz*, 893 F.2d 319 (Fed. Cir. 1989) (during patent examination the pending claims must be interpreted as broadly as their terms reasonably allow). The broadest reasonable interpretation of a claim drawn to a computer readable medium (also called machine readable medium and other such variations) typically covers forms of non-transitory tangible media and transitory propagating signals per se in view of the ordinary and customary meaning of computer readable media, particularly when the specification is silent. See MPEP 2111.01. When the broadest reasonable interpretation of a claim covers a signal per se, the claim must be rejected under 35 U.S.C. § 101 as covering non-statutory subject matter (emphasis added). See *In re Nuijten*, 500 F.3d 1346, 1356-57 (Fed. Cir. 2007) (transitory embodiments are not directed to statutory subject matter) and Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35 U.S.C. § 101, Aug. 24, 2009; p. 2.

The USPTO recognizes that applicants may have claims directed to computer readable media that cover signals per se, which the USPTO must reject under 35 U.S.C. § 101 as covering both non-statutory subject matter and statutory subject matter. In an effort to assist the patent community in overcoming a rejection or potential rejection under 35 U.S.C. § 101 in this situation, the USPTO suggests the following approach.

A claim drawn to such a computer readable medium that covers both transitory and non-transitory embodiments may be amended to narrow the claim to cover only statutory embodiments to avoid a rejection under 35 U.S.C. § 101 by adding the limitation "non-transitory" to the claim.

Such an amendment would typically not raise the issue of new matter, even when the specification is silent because the broadest reasonable interpretation relies on the ordinary and customary meaning that includes signals per se. The limited situations in which such an amendment could raise issues of new matter occur, for example, when the specification does not support a non-transitory embodiment because a signal per se is the only viable embodiment such that the amended claim is impermissibly broadened beyond the supporting disclosure. See, e.g., *Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473 (Fed. Cir. 1998).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 51-100 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,771,609 (Gudat et al.).

Regarding claims 51 and 83, Gudat et al. discloses: "dividing at least part of said worksite area into elementary cells mapped in correspondence with the topology of said area, or into said cells and determined communication zones" (FIG. 5; col. 7, line 63- col. 8, line 8: **"wide-area wireless network coverage"** and **"local-area wireless network coverage"**; col. 18, line 60 – col. 19, line 4: **"implemented to cover multiple work sites and multiple machines at each work site"**); "for a given cell or communication zone of said worksite, establishing at least one communication attribute value pertaining to a parameter of wireless communication to or from said given cell or communication zone" (FIG. 5; col. 7, line 63- col. 8, line 8: **"local area wireless networks as shown in FIG. 5, each providing high speed coverage over a portion of the site"**); "for a given cell, establishing at least one worksite management attribute value of the worksite for said given cell, said worksite management attribute value pertaining to a parameter other than a said communication attribute parameter" (FIG. 6: 20, 30, 32, 36; col. 10, lines 29 - 35: **"position acquisition system"** and **"environment/terrain map"**); "storing, in a memory, values of said worksite management and communication attributes, each stored attribute value being

electronically indexed to the elementary cell, or to the communication zone, for which it was determined" and "forming a said worksite management message with an electronically readable content containing at least one worksite management attribute value" (col. 11, line 58 – col. 12, line 35: **"a grid that has been placed on the ground over areas where local area network coverage exists" and "a storage location which holds three values": "elevation", "signal strength" "time";** "accessing said memory to obtain at least one current communication attribute value in respect of a cell or communication zone to or from which said formed management message is to be communicated by a wireless communication" (FIG. 8: **40, 42, 44, 48, 50, 52, 54; col. 10, line 29 – col. 11, line 6: "The current strength of local area network communication is acquired" and "check to see if environment/terrain map 32 is available";** and "establishing a wireless communication to or from said cell or communication zone to send or receive said management message on the basis of said current communication attribute value(s) electronically accessed from said memory" (FIG. 7; col. 9, lines 14 – 55: **"The decision to switch from the LAN interface to the WAN interface is made based upon predicted information while the decision to switch from the WAN to LAN is made based upon empirically measured data"**).

With respect to claim 52, Gudat et al. discloses: "said memory is provided as a common resource whose contents are accessible to communicating parties exchanging worksite management messages" (FIG. 6: **20, 30, 32, 36; col. 10, lines 29 - 35: "environment/terrain map"; col. 11, line 58 – col. 12, line 35: "Model Daemon 22**

**tracks its position across the environment/terrain map 32 and records the empirically collected values into these storage locations"; col. 16, line 60 – col. 17, line 23: "coordinates may be supplied as a series of discrete points to be able to calculate the position and path of the front shovel 80 in real time or to dynamically update the terrain map 32 of the work site 70"; col. 18, line 60 – col. 19, line 4: "implemented to cover multiple work sites and multiple machines at each work site").**

Regarding claims 53 and 84, Gudat et al. discloses: "said at least one communication attribute is at least one of the members of the set of following attributes: a communication frequency or channel allocation; a signal strength indicator, indicating a signal strength to use; a bandwidth capacity indicator; a detected signal-to-noise ratio; data communication security parameters, such as encryption/decryption codes, keys; data messaging format information; and data transmission protocol information" (col. 11, line 58 – col. 12, line 35: **"a grid that has been placed on the ground over areas where local area network coverage exists" and "a storage location which holds three values": "elevation", "signal strength", "time").**

With respect to claim 54, Gudat et al. discloses: "the act of indexing in said memory worksite management attributes and communication attributes to a common elementary cell to which they pertain" (col. 11, line 58 – col. 12, line 35: **"a grid that has been placed on the ground over areas where local area network coverage exists" and "a storage location which holds three values": "elevation", "signal strength", "time").**



Regarding claims 55 and 85, Gudat et al. discloses: "analysing a detected wireless communication signal at a determined elementary cell or communication zone"; "determining, on the basis of said analysis, whether a value of a said communication attribute of that signal is appropriate under current wireless communication conditions"; and "if said value of a said communication attribute is determined not to be appropriate, sending a message to said memory to cause the value of said communication attribute to be updated to an appropriate value, or to adjust the value of another communication parameter" (FIG. 8, 50: **"HAS HISTORICAL SIGNAL STRENGTH EXPIRED?"**, 54; col. 10, line 29 – col. 11, line 6: **"The current strength of local area network communication is acquired"** and **"using RF propagation and communications model 34 to predict future signal strength value at block 54"**).

With respect to claims 56 and 86, Gudat et al. discloses: "sending a message directly to the source of said detected wireless signal to cause said source to update the value of said communication attribute to an appropriate value or to adjust the value of another communication parameter" (FIG. 8, 50: **"HAS HISTORICAL SIGNAL STRENGTH EXPIRED?"**, 54; col. 10, line 29 – col. 11, line 6: **"The current strength of local area network communication is acquired"** and **"using RF propagation and communications model 34 to predict future signal strength value at block 54"**).

Regarding claims 57 and 87, Gudat et al. discloses: "for at least one communication attribute, said memory stores a plurality of values indexed as a function of at least one of the following set: a classification of the wireless communication sending party; a classification of the wireless communication receiving party; a

classification of a worksite management attribute to be conveyed in a said worksite management message; a location of the wireless communication sending party; and a location of the wireless communication receiving party" (col. 11, line 58 – col. 12, line 35: **"a grid that has been placed on the ground over areas where local area network coverage exists"** and **"a storage location which holds three values": "elevation", "signal strength", "time"**).

With respect to claims 58 and 88, Gudat et al. discloses: "the act of establishing or maintaining a radio link at a receiving party, comprising the steps of: accessing at least one stored communication attribute value; and automatically configuring receiver means of said receiving party on the basis of a said accessed communication attribute value(s)" (FIG. 7: **"UPDATE"**; col. 9, lines 14 – 55: **"The decision to switch from the LAN interface to the WAN interface is made based upon predicted information while the decision to switch from the WAN to LAN is made based upon empirically measured data"**).

Regarding claims 59 and 89, Gudat et al. discloses: "the act of establishing or maintaining a radio link at a transmitting party, comprising the steps of: accessing at least one stored communication attribute value; and automatically configuring transmitter means of said transmitting party on the basis of a said accessed communication attribute value(s)" (FIG. 7: **"UPDATE"**; col. 9, lines 14 – 55: **"The decision to switch from the LAN interface to the WAN interface is made based upon predicted information while the decision to switch from the WAN to LAN is made based upon empirically measured data"**).

With respect to claims 60 and 90, Gudat et al. discloses: "wherein a said communication attribute is a radio frequency or channel allocation, for exchanging data with a remote resource, said method further comprising the act of automatically updating and using said updated radio frequency or channel allocation as a function of communication conditions (FIG. 7: "UPDATE"; col. 9, lines 14 – 55: **"The decision to switch from the LAN interface to the WAN interface is made based upon predicted information while the decision to switch from the WAN to LAN is made based upon empirically measured data"**; col. 12, lines 44 – 50: **"based on ... the radio frequency used by the transmission equipment"**).

Regarding claims 61 and 91, Gudat et al. discloses: "a said communication attribute is signal strength indicator specifying a modulation or carrier signal strength value to use for a transmission in a communication link, said method further comprising the acts of: detecting a received signal strength at a receiving party"; "determining whether said received signal strength is below a threshold"; and "if the received signal strength is below the threshold, sending a message by the receiving party to correspondingly update said signal strength indicator value in said memory accessible to communicating parties" (FIG. 8, 50: **"HAS HISTORICAL SIGNAL STRENGTH EXPIRED?"**, 54; col. 10, line 29 – col. 11, line 6: **"The current strength of local area network communication is acquired"** and **"using RF propagation and communications model 34 to predict future signal strength value at block 54"**).

With respect to claims 62 and 92, Gudat et al. discloses: "a said communication attribute is a bandwidth capacity parameter expressing the bandwidth capacity limit of a

given carrier or channel over a given communication link, said method further comprising the acts of: determining the current amount of occupied bandwidth of a given communication carrier or channel"; "comparing said current amount of occupied bandwidth with the bandwidth capacity limit, indicated by said bandwidth capacity parameter, for that given communication carrier or channel, to determine if a determined saturation criterion is reached"; and "in the affirmative, sending a message to said memory and/or to communicating parties concerned, requesting to use another carrier or channel" (FIG. 5; col. 7, line 63- col. 8, line 8: **"low speed coverage" (i.e., narrow bandwidth => lower capacity); "high speed coverage" (i.e., wide bandwidth => higher capacity) "wide-area wireless network coverage" and "local-area wireless network coverage"; FIG. 7: "UPDATE"; col. 9, lines 14 – 55: "The decision to switch from the LAN interface to the WAN interface is made based upon predicted information while the decision to switch from the WAN to LAN is made based upon empirically measured data")**).

Regarding claim Gudat et al. 63, discloses: "said stored worksite and communication attribute parameter values are organised in a three-dimensional matrix of which the first and second dimensions map the topology of said worksite area and define the locations of said elementary cells or communication zones, and the third dimension corresponds to the set of worksite management and communication attribute parameter(s)" (col. 11, line 58 – col. 12, line 35: **"a grid that has been placed on the ground over areas where local area network coverage exists" and "a storage location which holds three values": "elevation", "signal strength", "time";**

**position/location “on the ground”).**

With respect to claim Gudat et al. 64, discloses: “a said elementary cell is dimensioned as a function of at least one of the following set: the variation in contour at said cell; the variation in contour at the immediate vicinity of said cell”; “the rate of variation with respect to position in the value of at least one data to be managed”; and “the type of tool(s) scheduled to operate in the area occupied by said elementary cell” (col. 11, line 58 – col. 12, line 35: **“a grid that has been placed on the ground over areas where local area network coverage exists” and “a storage location which holds three values”: “elevation”, “signal strength”, “time” and “Model Daemon 22 tracks its position across the environment/terrain map 32 and records the empirically collected values as into these storage locations”**).

Regarding claim 65, Gudat et al. discloses: “dimensions of elementary cells are variable over said worksite area” FIG. 5; col. 7, line 63- col. 8, line 8: **“wide-area wireless network coverage” and “local-area wireless network coverage”**; col. 18, line 60 – col. 19, line 4: **“implemented to cover multiple work sites and multiple machines at each work site”**).

With respect to claim 66, Gudat et al. discloses: “wherein communication attribute and/or worksite management attribute values are acquired and communicated and/or stored by mobile apparatus as they are conducting site modifying tasks on the worksite” (col. 11, line 58 – col. 12, line 35: **“a grid that has been placed on the ground over areas where local area network coverage exists” and “a storage location which holds three values”: “elevation”, “signal strength” “time”; FIG. 12:**

**80; col. 16, lines 49-59: “a geography altering machine such as a front shovel 80 shown on location at a work site 70. The front shovel 80 is a track-type machine which performs various earthmoving operations on the work site 70).**

Regarding claims 67 and 94, Gudat et al discloses: “interrogating at least one source of dynamically updatable data, on board mobile apparatus active on said worksite, capable of delivering at least one current attribute parameter value for a communication attribute and/or for a worksite management attribute”; “determining the geographical location at which said current value(s) is/are acquired”; and “storing said attribute parameter value(s) acquired at said interrogating step, in association with the cell or communication zone corresponding to the said determined geographical location, as an updated communication attribute and/or a worksite management attribute parameter value” (FIG. 8, 50: “HAS HISTORICAL SIGNAL STRENGTH EXPIRED?”, 54; col. 10, line 29 – col. 11, line 6: “The current strength of local area network communication is acquired” and “using RF propagation and communications model 34 to predict future signal strength value at block 54”; col. 11, line 58 – col. 12, line 35: “a grid that has been placed on the ground over areas where local area network coverage exists” and “a storage location which holds three values”: “elevation”, “signal strength” “time”).

With respect to claims 68 and 95, Gudat et al discloses: “wherein a said updated communication attribute and/or worksite management attribute value is sent to a remote data management resource for dynamically updating said stored data values by at least the acts of: forming a message containing said communication attribute and/or a

worksite management attribute parameter value(s) and said geographical location data; and sending said message to said remote data management resource" (FIG. 6: 20, 30, 32, 36; col. 10, lines 29 - 35: "environment/terrain map"; col. 11, line 58 – col. 12, line 35: "Model Daemon 22 tracks its position across the environment/terrain map 32 and records the empirically collected values into these storage locations"; FIG. 7: "UPDATE"; col. 9, lines 14 – 55: "The decision to switch from the LAN interface to the WAN interface is made based upon predicted information while the decision to switch from the WAN to LAN is made based upon empirically measured data"; FIG. 8, 50: "HAS HISTORICAL SIGNAL STRENGTH EXPIRED?", 54; col. 10, line 29 – col. 11, line 6: "The current strength of local area network communication is acquired" and "using RF propagation and communications model 34 to predict future signal strength value at block 54").

Regarding claims 69 and 96, Gudat et al. discloses: "interrogating at least one source of dynamically updatable data on board said mobile apparatus, capable of delivering at least one current communication attribute and/or worksite management attribute parameter value"; "determining the geographical location at which said current value(s) is/are acquired"; and "associating and locally storing said current communication attribute and/or worksite management attribute parameter value(s) and said geographical location data on board said mobile apparatus" (FIG. 8, 50: "HAS HISTORICAL SIGNAL STRENGTH EXPIRED?", 54; col. 10, line 29 – col. 11, line 6: "The current strength of local area network communication is acquired" and "using RF propagation and communications model 34 to predict future signal

**strength value at block 54”; col. 11, line 58 – col. 12, line 35: “a grid that has been placed on the ground over areas where local area network coverage exists” and “a storage location which holds three values”: “elevation”, “signal strength” “time”).**

With respect to claims 70 and 97, Gudat et al. discloses: “further comprising the act of uploading said communication attribute and/or a worksite management attribute parameter value(s) and said geographical location data from said mobile apparatus to a remote data management resource at a determined updating moment” (FIG. 7; col. 9, lines 14 – 55: **“The decision to switch from the LAN interface to the WAN interface is made based upon predicted information while the decision to switch from the WAN to LAN is made based upon empirically measured data” and “Model Daemon 22 will send an “update” command to the Mobile IP software on this node. Update commands are sent periodically to ensure that the Model Daemon 22 and mobile node M remain synchronized”**).

Regarding claims 71 and 98, Gudat et al. discloses: “the value(s) of at least one said communication attribute and/or worksite management is/are dynamically updatable, and acquired and communicated on-the-fly by, and as, a mobile apparatus performs worksite modifying tasks evolves over said worksite area” (FIG. 6: 20, 30, 32, 36; col. 10, lines 29 - 35: **“environment/terrain map”**; col. 11, line 58 – col. 12, line 35: **“Model Daemon 22 tracks its position across the environment/terrain map 32 and records the empirically collected values into these storage locations”**; col. 16, line 60 – col. 17, line 23: **“coordinates may be supplied as a series of discrete**



points to be able to calculate the position and path of the front shovel 80 in real time or to dynamically update the terrain map 32 of the work site 70"; col. 11, line 58 – col. 12, line 35: "a grid that has been placed on the ground over areas where local area network coverage exists" and "a storage location which holds three values": "elevation", "signal strength" "time"; FIG. 12: 80; col. 16, lines 49-59: "a geography altering machine such as a front shovel 80 shown on location at a work site 70. The front shovel 80 is a track-type machine which performs various earthmoving operations on the work site 70).

With respect to claim 72, Gudat et al. discloses: "wherein at least one worksite management attribute relates to physical or chemical material characteristics of said worksite and/or physical or chemical atmospheric characteristics of said worksite" (col. 11, line 58 – col. 12, line 35: "a grid that has been placed on the ground over areas where local area network coverage exists" and "a storage location which holds three values": "elevation", "signal strength" "time").

Regarding claim 73, discloses: "wherein at least one worksite management attribute parameter value is inferred from operating parameters of a site-modifying apparatus operative in said worksite area" (FIG. 6: 20, 30, 32, 36; col. 10, lines 29 - 35: "environment/terrain map"; col. 11, line 58 – col. 12, line 35: "Model Daemon 22 tracks its position across the environment/terrain map 32 and records the empirically collected values into these storage locations"; col. 16, line 60 – col. 17, line 23: "coordinates may be supplied as a series of discrete points to be able to calculate the position and path of the front shovel 80 in real time or to

dynamically update the terrain map 32 of the work site 70"; col. 11, line 58 – col. 12, line 35: "a grid that has been placed on the ground over areas where local area network coverage exists" and "a storage location which holds three values": "elevation", "signal strength" "time"; FIG. 12: 80; col. 16, lines 49-59: "a geography altering machine such as a front shovel 80 shown on location at a work site 70. The front shovel 80 is a track-type machine which performs various earthmoving operations on the work site 70).

With respect to claim 74, Gudat et al. discloses: "wherein at least one worksite management attribute value is established prior to site modifying operations on said worksite and relates to a non-dynamic land characteristic of said worksite" (col. 16, line 60 – col. 17, line 23: "coordinates may be supplied as a series of discrete points to be able to calculate the position and path of the front shovel 80 in real time or to dynamically update the terrain map 32 of the work site 70" and "stored with digitized models of the work site 70 prior to alteration and a desired topography of the work site").

Regarding claim 75, Gudat et al. discloses: "wherein said at least one worksite management attribute value is established prior to site modifying operations on said worksite and relates to operating characteristics of mobile apparatus" (col. 16, line 60 – col. 17, line 23: "coordinates may be supplied as a series of discrete points to be able to calculate the position and path of the front shovel 80 in real time or to dynamically update the terrain map 32 of the work site 70" and "stored with digitized models of the work site 70 prior to alteration and a desired topography

**of the work site after alteration is completed”).**

With respect to claim 76, Gudat et al. discloses: “wherein said at least one worksite management attribute value is established prior to site modifying operations on said worksite and relates to legal, administrative, or contractual data associated to said worksite” (col. 11, line 58 – col. 12, line 35: **“a grid that has been placed on the ground over areas where local area network coverage exists” and “a storage location which holds three values”: “elevation”, “signal strength”, “time”**). It is respectfully submitted that “elevation” can inherently be a part of a legal/contractual description of the work site property.

Regarding claim 77, Gudat et al. discloses: “wherein at least one worksite management attribute relates to a reference level, its value for a cell expressing reference level value with respect to which elevation/depth values are established for that cell” (col. 11, line 58 – col. 12, line 35: **“a grid that has been placed on the ground over areas where local area network coverage exists” and “a storage location which holds three values”: “elevation”, “signal strength” “time”**).

With respect to claim 78, Gudat et al. discloses: “the act of preparing an individualised dataset specific to an identified site-modifying mobile apparatus, said individualised dataset comprising selected communication attribute and/or a worksite management attribute parameter values for the requirements of that site-modifying mobile apparatus” (col. 11, line 58 – col. 12, line 35: **“a grid that has been placed on the ground over areas where local area network coverage exists” and “a storage location which holds three values”: “elevation”, “signal strength” “time”; FIG. 12:**

80; col. 16, line 49 – col. 17, line 23: “coordinates may be supplied as a series of discrete points to be able to calculate the position and path of the front shovel 80 in real time or to dynamically update the terrain map 32 of the work site 70”; and “The front shovel 80 is a track-type machine which performs various earthmoving operations on the work site 70. It will become apparent, however, that the principles and applications of the present invention will lend themselves to virtually any mobile tool or machine”).

Regarding claim 79, Gudat et al. discloses: “wherein said individualised dataset relates only to cells of a region of said worksite where said site-modifying apparatus is programmed to be present over a determined time window” (col. 11, line 16 – col. 12, line 35: “a grid that has been placed on the ground over areas where local area network coverage exists” and “a storage location which holds three values”: “elevation”, “signal strength” “time”; and “The age threshold of a work area might only be valid for a relatively short period of time where the terrain changes more rapidly. If a mobile node returns to a location that it has been to within the limit of time set by the age threshold”).

With respect to claim 80, Gudat et al. discloses: “individualised dataset specific to an identified site-modifying mobile apparatus, said individualised dataset being prepared specifically for the execution of the method according claim 51, and comprising selected data elements of said attribute worksite management and/or communication attribute parameters for the specific requirements of that site-modifying mobile apparatus” (see previously stated citations for the rejection of claim 51 above

and col. 11, line 58 – col. 12, line 35: “a grid that has been placed on the ground over areas where local area network coverage exists” and “a storage location which holds three values”: “elevation”, “signal strength” “time”; FIG. 12: 80; col. 16, line 49 – col. 17, line 23: “coordinates may be supplied as a series of discrete points to be able to calculate the position and path of the front shovel 80 in real time or to dynamically update the terrain map 32 of the work site 70”; and “The front shovel 80 is a track-type machine which performs various earthmoving operations on the work site 70. It will become apparent, however, that the principles and applications of the present invention will lend themselves to virtually any mobile tool or machine”).

Regarding claim 81, Gudat et al. discloses: “said individualised dataset relates only to cells of a region of said worksite where said contour-modifying apparatus is programmed to be present over a determined time window” (col. 11, line 16 – col. 12, line 35: “a grid that has been placed on the ground over areas where local area network coverage exists” and “a storage location which holds three values”: “elevation”, “signal strength” “time”; and “The age threshold of a work area might only be valid for a relatively short period of time where the terrain changes more rapidly. If a mobile node returns to a location that it has been to within the limit of time set by the age threshold”).

With respect to claim 82, Gudat et al. inherently discloses: “code executable by processor means, said code causing said processor means to carry out the method according to claim 51 (see above stated citations for the reject of claim 51).

Regarding claim 99, Gudat et al. discloses: "means for acquiring worksite attribute parameter value(s) comprising at least one of the set: a total station type of surveying device; an aerial view sensor; a GPS (global positioning by satellite) device; and an LPS (local positioning system)" (col. 11, lines 37-40: **"In a preferred embodiment of the present system, the position acquisition system 30 is a differential global positioning system (DGPS) system, although another technology could be substituted"**).

With respect to claim 100, Gudat et al. discloses: "data filtering means for selecting, from the stored attribute values, those items of information relevant to at least one of the set: selected cells; selected site-modifying apparatus; and selected tasks on said worksite"; and "means for sending said filtered information to targeted recipients" (FIG. 6: 20, 30, 32, 36; col. 10, lines 29 - 35: **"environment/terrain map"**; FIG. 7: **"UPDATE"**; col. 9, lines 14 - 55: **"The decision to switch from the LAN interface to the WAN interface is made based upon predicted information while the decision to switch from the WAN to LAN is made based upon empirically measured data"**; FIG. 8, 50: **"HAS HISTORICAL SIGNAL STRENGTH EXPIRED?"**, 54; col. 10, line 29 - col. 11, line 6: **"The current strength of local area network communication is acquired"** and **"using RF propagation and communications model 34 to predict future signal strength value at block 54"**).

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent No. 5,808,907 discloses a method for providing information relating to a mobile machine to a user. US Patent No. 6,037,901 discloses a system and method for communicating information for fleets of earth-working machines. US Patent No. 5,646,844 discloses a method and apparatus for real-time monitoring and coordination of multiple geography altering machines on a work site. US Patent No. 5,631,658 discloses a method and apparatus for operating geography-altering machinery relative to a work site.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MYRON WYCHE whose telephone number is 571-272-3390. The examiner can normally be reached on Monday-Friday, 8 a.m. to 5 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on 571-272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Examiner, Art Unit 2617

/Myron Wyche/  
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July 17, 2010